

DISTRIBUSI KURKUMIN DAN KURKUMINOID PADA EMPU DAN ANAKAN RIMPANG *Curcuma mangga* Val. BERDASARKAN PERBEDAAN WAKTU PANEN

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INTISARI

Telah dilakukan penelitian tentang distribusi kurkumin dan kurkuminoid yaitu demetoksikurkumin dan bisdemetoksikurkumin pada empu dan anakan rimpang *Curcuma mangga* Val. dengan waktu panen umur 3 dan 10 bulan. Penelitian ini bertujuan untuk mengetahui distribusi kurkumin, demetoksikurkumin dan bisdemetoksikurkumin pada empu dan anakan rimpang *Curcuma mangga* Val. berdasarkan perbedaan waktu panen. Penelitian diawali dengan isolasi kurkumin dan kurkuminoid menggunakan metode ekstraksi maserasi dengan etanol 95% selama 24 jam. Kurkumin dan kurkuminoid diidentifikasi dengan KLT menggunakan eluen diklorometana:metanol (98:2 v/v) dan dimurnikan menggunakan metode kromatografi kolom. Hasil yang diperoleh ditentukan kadar senyawa kurkumin dan kurkuminoid menggunakan *TLC Scanner* dan dianalisis dengan LC-MS.

Hasil penelitian menunjukkan bahwa distribusi kurkumin dan kurkuminoid lebih besar pada empu dibanding anakan rimpang *Curcuma mangga* Val. Tanaman *Curcuma mangga* Val. yang berumur 3 bulan memiliki kadar demetoksikurkumin>kurkumin>bisdemetoksikurkumin, dan tanaman yang berumur 10 bulan memiliki kadar kurkumin>demetoksikurkumin>bisdemetoksikurkumin. Berdasarkan hasil analisis dengan LC-MS, metode pemisahan dengan kromatografi kolom menggunakan eluen diklorometana:metanol (98:2 v/v) tidak dapat memisahkan ketiga senyawa tersebut.

Kata kunci: *Curcuma mangga* Val., kurkumin dan kurkuminoid, kromatografi kolom

**DISTRIBUTION OF CURCUMIN AND CURCUMINOID FROM PARENTS
AND SAPLING RHIZOMES OF *Curcuma mangga* Val. BASED ON
HARVEST TIME DIFFERENCE**

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ABSTRACT

The research about the distribution of curcumin and curcuminoid namely demethoxycurcumin and bisdemethoxycurcumin on parents and sapling rhizomes of *Curcuma mangga* Val. at 3 and 10 months harvest ages had been done. The purpose are determining the distribution of curcumin, demethoxycurcumin, and bisdemethoxycurcumin from parents and sapling rhizomes of *Curcuma mangga* Val. based on harvest time difference. The research was started with isolation of curcumin and curcuminoid using maceration extraction method with 95% ethanol for 24 h. Curcumin and curcuminoid been identified using TLC method with dichloromethane:methanol (98:2 v/v) eluent, and was separate using column chromatography. The composition of curcumin and curcuminoid had determined by TLC Scanner and analyzed using LC-MS.

The result of this research showed that the distributions of curcumin and curcuminoid were greater in parent than sapling rhizomes of *Curcuma mangga* Val. The level contents in 3 months *Curcuma mangga* Val. were demethoxycurcumin>curcumin>bisdemethoxycurcumin, and the level contents in 10 months plant were curcumin>demethoxycurcumin>bisdemethoxycurcumin. According to LC-MS analysis, separation method by column chromatography using dichloromethane:methanol (98:2 v/v) eluent was not separating all these compounds.

Keywords: *Curcuma mangga* Val., curcumin and curcuminoid, column chromatography